

200



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,029	02/14/2001	Jae-Ho Moon	P56310	8245

8439 7590 10/21/2003

ROBERT E. BUSHNELL  
1522 K STREET NW  
SUITE 300  
WASHINGTON, DC 200051202

EXAMINER

HUFFMAN, JULIAN D

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/782,029

Applicant(s)

MOON ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 September 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 36 and 37.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 3, 6 and 27.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☒ Other: See Continuation Sheet

Continuation of 10. Other: Applicant's argument that Sato does not disclose a "conical" shaped orifice is not persuasive. Applicant provides a definition for the term cone. Firstly, there are any number of dictionaries in existence, each with multiple variable definitions for the term cone. Webster's dictionary defines a cone as a "solid generated by rotating a right triangle about one of its legs" and also defines a cone as "something that resembles a cone in shape". Secondly, the term used in the claim language is "conical". The word cone is never used. The definition for conical is resembling a cone in shape. Thirdly, the shape applicant is describing is a right circular cone, which defines a more specific type of cone. If all cones were formed of straight line segments, there would be no use for the term "right circular cone", which is a specific sub type of cones which are formed from straight line segments, and therefore the term "right circular cone" would not exist. However, a definition for the term "right circular cone" is present in the dictionary and refers to the definition for cone which uses the right triangle language. It follows that definition cited by applicant is the definition for a right circular cone, a specific type of a cone, and is not a general definition for the term. Additional evidence of applicant adopting a broad interpretation of the term conical is found in claim 27 where applicant further specifies a right circular cone after broadly specifying a cone. Fourthly, there is no other term besides the word cone which could be used to generally state the shape of the orifices disclosed by Sato. Lastly, applicant does not clearly define the term cone in the specification. Applicant's disclosure refers to a cone which includes a large diameter portion 21b surrounding the heater 30 and the ink feed hole 11b formed on both sides of the heater 30 and a small diameter portion 21a disposed opposite the large diameter portion 21b for ejecting ink. Sato discloses such an arrangement.


Applicant's argument that the translation of Sato does not use the term conic and therefore does not disclose a cone is irrelevant. The figure clearly shows the shape of the orifices, which are conical.

Applicant's argument that there would be no reason to combine Abe with Sato and Bassous since cavitation damage would not occur in Sato lacks supporting evidence. Further, the different heater arrangements disclosed by Abe are evidence that the different heater shapes are art recognized equivalents.

Applicant's argument regarding Bassous and Abe fails to consider the rejection made. Bassous and Abe are both modifying the base reference. Abe is not modifying Bassous.

Applicant argues that since there are fewer ink supply holes 18 in Murthy than nozzle holes, Murthy fails to teach the limitation that each chamber-orifice hole corresponds to at least one ink feed hole. The evidence does not warrant the conclusion made in this argument. There is at least one ink feed hole in Murthy, and each chamber-orifice complex hole corresponds to it, thus Murthy teaches the claimed invention.

The entry of the amendment places dependent claims in independent form, removes the word directly and deletes language from claim 27 which does not effect the rejection. The claims as amended are still rejected under the final rejection made by the examiner, which is deemed proper and maintained.

  
Benjamin R. Fuller  
Supervisory Patent Examiner  
Technology Center 2800